Dragon Eye Unmanned Aerial Vehicle (UAV)

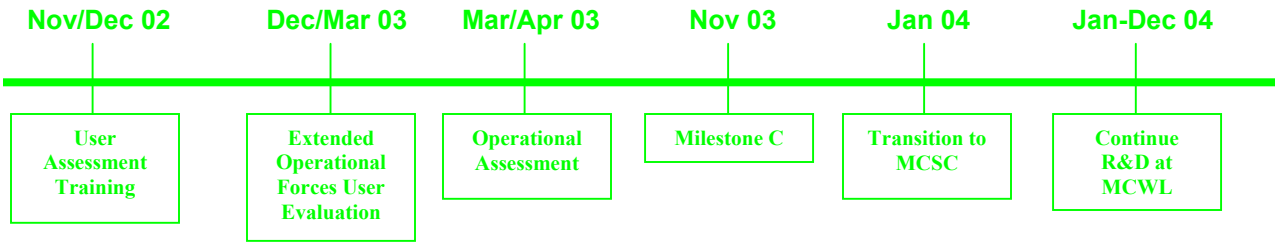
Purpose: To provide the small unit leader an over-the-hill reconnaissance capability using a backpackable UAV system with interchangeable modular payloads.

Background: The impetus for the project came from the Secretary of the Navy's Over-the-Hill Reconnaissance initiative, and the Interim Small Unit Remote Scouting System requirement. The Dragon Eye (DE) UAV, is a combined project of the Lab and the Marine Corps Systems Command (MCSC). This UAV is intended to support Marine Corps Systems Command (MCSC) to develop a prototype lightweight, backpackable UAV capable of providing real time day/night video imagery. The MCSC, Program Manager Scouting Systems is the office of record and the Interim Small Unit Remote Sensor System (ISURSS) is a sub-requirement of the Tactical Remote Sensor Suite Operational Requirements Document (ORD).

Description: Dragon Eye is a 5.5-pound, battery-powered, modular UAV capable of fully autonomous flight. Made of lightweight Kevlar material, this system is designed to disassemble into five separate pieces, and carried in its container attached to an individual Marine's ALICE pack. Missions are programmed via a wireless modem that is integrated into a ten-pound ground control station. After being launched, DE flies to pre-assigned GPS waypoints via an onboard autopilot, which has the ability to be reprogrammed in flight. Its sensors include full motion color and low light black and white cameras, each having the capability to transmit a video line of sight to a range of ten kilometers. An infrared camera is currently in testing and development. Dragon Eye flies up to speeds of 45 knots, and has a battery endurance of up to 60 minutes. Ten Dragon Eye prototype systems were provided to I MEF for evaluation, and tactics, techniques and procedures development.

Deliverable Product(s): Assessments based on operational experimentation, i.e., varied mission type payloads.

Milestones:



Action Officer: (703) 432-0464